

CLAIMS

1. A yeast transformed with an Os-1 family histidine kinase gene of a filamentous fungus.
2. The transformed yeast according to claim 1, wherein the Os-1 family histidine kinase gene of a filamentous fungus is a HIK1 gene.
3. The transformed yeast according to claim 1 or 2, wherein the yeast is *Saccharomyces cerevisiae*.
4. A kit for screening a filamentous fungus-specific agricultural chemical candidate or drug candidate comprising: (1) a yeast transformed with an expression vector of a filamentous fungus-derived Os-1 family histidine kinase gene; and (2) a control yeast (which does not express a filamentous fungus-specific enzyme).
5. The kit for screening a filamentous fungus-specific agricultural chemical candidate or drug candidate according to claim 4, wherein the filamentous fungus-derived Os-1 family histidine kinase gene is a HIK1 gene.
6. The kit for screening a filamentous fungus-specific agricultural chemical candidate or drug candidate according to claim 4 or 5, wherein the yeast is *Saccharomyces cerevisiae*.
7. A method for screening a filamentous fungus-specific agricultural chemical candidate or filamentous fungus-specific drug candidate comprising the following steps (1) to (3) of:
 - (1) administering an agricultural chemical candidate sample or drug candidate sample to a yeast transformed with a recombinant expression vector of a filamentous fungus-derived Os-1 family histidine kinase gene and to a control yeast (which does not express an Os-1 family histidine kinase);

(2) culturing the Os-1 family histidine kinase-expressing transformant and the control yeast administered with the agricultural chemical candidate sample or drug candidate sample for a fixed time; and

(3) after the culture for a fixed time, measuring growth rates or viable cell counts of the Os-1 family histidine kinase-expressing transformant and the control yeast.

8. The method according to claim 7, wherein the measurement of growth rates or viable cell counts of the transformant and the control yeast is performed by measuring OD values of culture solutions of the Os-1 family histidine kinase-expressing transformant and the control yeast.

9. The method according to claim 7, wherein the measurement of growth rates or viable cell counts of the Os-1 family histidine kinase-expressing transformant and the control yeast is performed by using a yeast-specific antibody.

10. The screening method according to any one of claims 7 to 9, wherein the filamentous fungus-derived Os-1 family histidine kinase gene is a HIK1 gene.

11. The screening method according to any one of claims 7 to 10, wherein the yeast is *Saccharomyces cerevisiae*.